

**REMARKS**

**I. Introduction**

This paper is being presented in response to an official action dated August 8, 2001, wherein all pending claims (claims 14 and 17-54) have been rejected under 35 U.S.C. §§ 102(b) and/or 103(a). More specifically:

- (A) Claims 37-42, 48, and 49 have been rejected under § 102(b) as being anticipated by Hsu U.S. Patent No. 4,822,440 (the "Hsu patent"), and/or rejected under § 103(a) as being obvious over the Hsu patent;
- (B) Claims 43-45 have been rejected under § 103(a) as being obvious over the Hsu patent in view of Brooker et al. U.S. Patent No. 5,723,221 (the "Brooker patent");
- (C) Claims 46 and 47 have been rejected under § 103(a) as being obvious over the Hsu patent in view of Guyette U.S. Patent No. 5,425,986 (the "Guyette patent") and McClain U.S. Patent No. 1,299,747 (the "McClain patent");
- (D) Claims 14, 17, 24-29, 36-41, and 48-54 have been rejected under § 103(a) as being obvious over Baymiller U.S. Patent No. 3,816,236 (the "Baymiller patent") in view of the Hsu and McClain patents;
- (E) Claims 22, 23, 34, 35, 46, and 47 have been rejected under § 103(a) as being obvious over the Baymiller patent in view of the Hsu and McClain patents, and further in view of the Guyette patent; and,
- (F) Claims 18-21, 30-33, and 42-45 have been rejected under § 103(a) as being obvious over the Baymiller patent in view of the Hsu and McClain patents, and further in view of the Brooker patent.

Reconsideration and withdrawal of the rejections are respectfully requested in view of the following remarks. Arguments traversing the rejections are set forth below in corresponding sub-sections (A) - (F) in Section IV of this paper. The patentability arguments set forth in "Amendment 'B'" filed November 30, 2000, and "Amendment 'C'" filed June 1, 2001, are applicable here and, therefore, are incorporated herein by reference.

In compliance with 37 C.F.R. § 1.121, attached hereto is a sheet (numbered as page 17) showing the changes made to claim 37 by this amendment. The attached sheet is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

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## II. The Subject Matter of the Pending Claims 14 and 17-54

The pending claims are directed to an unwarped, laminated composite wood product not disclosed in, taught by, or suggested by the prior art. Specifically, the applicant has determined that warping of layered composite wood products containing a veneer sheet can be minimized or eliminated by disposing a veneer layer on *only one* resin-saturated sheet layer. *Alternatively or additionally*, the warping can be minimized or eliminated by consolidating in a pressing apparatus a layered structure comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer disposed on each of said sides, and a veneer layer disposed on *only one* of said sheet layers, wherein the pressing apparatus includes a first platen operating at an elevated temperature *different* from an elevated operating temperature of a second platen. The elevated temperature and pressure are provided for a time sufficient to cure the resin. The applicant's discovery is a marked advance over prior products, which were prepared by cumbersome balancing techniques (*i.e.*, utilization of veneer layers on both sides of the substrate or, alternatively, a heavy duty backer paper) and still did not possess the desirable characteristics of the inventive products recited in the claims of this application.

The laminated composite wood product recited in claim 37 is patentable over the prior art of record because, *inter alia*, of (a) the presence of a veneer layer on *only one* resin-saturated sheet layer and, (b) the use of *different* press platen temperatures. This, in turn, results in an unwarped product — a product which cannot be made according to the prior art without the use of the cumbersome balancing techniques described above. Claims 38-50, which depend from claim 37, also are patentable as they further limit the scope of patentable claim 37. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 51 is patentable over the prior art of record because, *inter alia*, the features of (a) *different* press platen temperatures, and (b) the presence of a veneer layer on *only one* resin-saturated sheet layer are neither disclosed nor taught by any prior art reference. These features are useful in preventing warpage and/or ensuring minimum

warpage. Claim 52, which depends from claim 51, also is patentable because it further limits the scope of patentable claim 51. *See In re Fine*, 5 U.S.P.Q.2d at 1600.

Claim 53 is patentable over the prior art of record because, *inter alia*, the feature of *different* press platen temperatures is neither disclosed nor taught by any prior art reference. As previously noted, use of different press platen temperatures results in an unwarped product — a product which cannot be made according to the prior art without the use of the cumbersome balancing techniques describe above. Claim 54, which depends from claim 53, also is patentable because it further limits the scope of patentable claim 53. *See In re Fine*, 5 U.S.P.Q.2d at 1600.

### III. Rejections Under 35 U.S.C. §§ 102(b) and 103(a)

#### A. The Proper Basis for Rejection Under 35 U.S.C. § 102(b)

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). It is “incumbent upon the examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference.” *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1462 (Bd. Pat. App. & Inter. 1990) (citing *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick*, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)). Additionally, “[t]he identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

#### B. The Proper Basis for Rejection Under 35 U.S.C. § 103(a)

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in

the prior art, and not based on the applicant's own disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The examiner bears the burden of establishing a *prima facie* case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d at 1598. To support a conclusion that a claimed combination is obvious, either: (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). Where the teachings of various references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 18 U.S.P.Q.2d 1089 (Fed. Cir. 1991).

#### **IV. The Rejections Under 35 U.S.C. §§ 102(b) and 103(a) Are Traversed**

##### **A. The Rejection of Claims 37-42, 48, and 49 Over the Hsu Patent**

Claims 37-42, 48, and 49 have been rejected under § 102(b) as being anticipated by Hsu U.S. Patent No. 4,822,440 (the "Hsu patent") and/or rejected under § 103(a) as being obvious over the Hsu patent. Reconsideration and withdrawal of the rejections are respectfully requested. (See the official action at ¶s 2, 3, and 8.)

Paragraphs 2 and 3 (set forth at pages 2 and 3) of the official action suggest that all of the elements recited in claims 37-42 and 48 are allegedly disclosed in the Hsu patent, and that those (process) limitations not disclosed in the Hsu patent "do not patentably distinguish a claimed product claim [sic] from a product taught in the prior art unless the process claims inherently result in a materially different product."

The Hsu patent teaches the use of a *resin coated* sheet sandwiched between a veneer sheet and a wood particle board. (See the Hsu patent at col. 2, lines 50-62 and Figs. 1 and 2.) As shown in Fig. 1 of the Hsu patent and described at col. 2, lines 55-62 therein, this

sandwiching occurs at *both* planar surfaces of the core. The formed, layered composite article is consolidated under heat (275°F) and pressure (150 pounds per square inch (psi)) for a period (a few minutes) such that the resin forms a strong bond between the veneer sheets and the core. (The Hsu patent at col. 2, lines 63-68.)

There are patentable differences between the invention recited in the rejected claims 37-42, 48, and 49, and the disclosure in the Hsu patent. The Hsu patent teaches the use of a resin-*coated* sheet layer to bond a veneer to a core substrate. In contrast, the invention recited in the rejected claims calls for a resin-*saturated* sheet layer. Resin-coated sheet layers and resin-saturated sheet layers, however, are not equivalent. In fact, the present application at, for example, page 2, lines 24-27, expressly teaches against the use of resin-coated sheet layers, as layered wood composite structures made according to conventional compression-molding press processes (e.g., those utilizing single resin-coated paper layers) undesirably experience excessive warping toward the veneer side. As stated in the application at, for example, page 8, lines 14-22, an important feature of the invention is the utilization of resin-saturated or resin-impregnated (as opposed to resin-coated) sheets on both top and bottom surfaces of the core substrate to ensure minimal or no warping of the substrate and finished product. Distinctions between (a) resin-saturated or resin-impregnated sheets and (b) resin-coated sheets also can be found in the specification at, for example, page 6, line 16 to page 7, line 7. The Hsu patent provides absolutely no suggestion or other motivation to substitute a sheet *coated* with a resin with one *saturated* with the resin.

Additionally, by the teachings and disclosure set forth in the Hsu patent, the skilled artisan is not aware that warping of a consolidated wood product is a problem. To the contrary, the skilled artisan is led to believe that the use of the balancing veneer might offset any tendency of the consolidated wood product to warp — this phenomenon is noted at page 3, lines 9-16 of the application. Furthermore, Fig. 1 of the Hsu patent teaches that each of the two surfaces of the core substrate are overlaid with either a veneer face or a balancing veneer. (See the Hsu patent at col. 2, lines 55-62.) Consequently, the skilled artisan would not be motivated to discard the balancing veneer mandated by the Hsu patent teachings for fear that warping would ensue. In contrast to the Hsu patent teachings, amended, independent claim 37 recites a veneer layer disposed on *only one* of the resin-saturated sheet layers. This feature along with the specific consolidation conditions recited in claim 37 (and

claims dependent therefrom) unexpectedly results in an unwarped laminated composite wood product.

Because the Hsu patent describes neither a resin-saturated sheet nor the dispensation with the balancing veneer or heavy duty backer paper, it can neither anticipate under § 102(b), nor render obvious under 103(a), any of the rejected claims. *See Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Accordingly, reconsideration and withdrawal of the rejections on this basis are requested.

As noted above and throughout the application, the applicant has discovered that warping of a consolidated wood product containing a veneer layer can be minimized or eliminated by consolidating in a pressing apparatus a layered structure comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer disposed on each of said sides, and a veneer layer disposed on *only one* of said sheet layers, wherein the pressing apparatus includes a first platen operating at an elevated temperature *different* from an elevated operating temperature of a second platen. Amended, independent claim 37 recites such an unwarped product prepared by these press conditions. The press conditions (of having press platens operate at different temperatures during the consolidation process) are not disclosed in the Hsu patent. Dependent claims 38-41 recite additional details of the press conditions. The Hsu patent does not teach any press conditions (*i.e.*, temperatures, pressures, or press times) that fall within the range of press conditions recited in dependent claims 38-41.

The examiner has stated that recitation of process limitations not disclosed in the Hsu patent "do not patentably distinguish a claimed product claim [sic] from a product taught in the prior art unless the process claims inherently result in a materially different product." It is submitted that the application provides ample teachings that make clear to one of ordinary skill in the art that the press conditions recited in the rejected claims (specifically claims 37-41) will yield an *unwarped* product whereas the teachings of the Hsu patent will yield a *warped* product if, for example, the balancing veneer (see elements 24 and 26 of Fig. 1 of the Hsu patent) mandated by the Hsu patent teachings is discarded. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

The examiner's citation in paragraph 8 of the official action to *In re Aller*, 105 U.S.P.Q. 233 (C.C.P.A. 1955), is of little import in view of the U.S. Supreme Court's decision in *Graham v. John Deere Co.*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). In *Graham*, the Court set forth the proper standard for a determination of obviousness under § 103. The citation to *In re Aller* is further misplaced as the underlying claim (claim 37) from which claim 49 depends is patentable over the cited art — amended, independent claim 37 is not anticipated by the prior art, and no *prima facie* case of obviousness has been made.

**B. The Rejection of Claims 43-45 Over the Hsu Patent in View of the Brooker Patent**

Claims 43-45 have been rejected under § 103(a) as being obvious over the Hsu patent in view of Brooker et al. U.S. Patent No. 5,723,221 (the "Brooker patent"). (See the official action at ¶ 5.) Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 43-45 each depend (indirectly) from amended, independent claim 37. The patentability of independent claim 37 is set forth in the immediately-preceding subsection (A) and, because claim 37 is patentable, so too are claims dependent therefrom, like claims 43-45. See *In re Fine*, 5 U.S.P.Q.2d at 1600.

The Hsu patent teaches coating cross-banding sheets with a resin, disposing the sheets between a veneer and surfaces of a core substrate to form a layered structure, and then consolidating the structure under specific consolidating conditions. The Hsu patent does not teach a layered structure wherein *only one* surface of the substrate is overlaid with a veneer, as recited in amended, independent claim 37. This deficiency in the Hsu patent teachings is not remedied by the disclosure of the Brooker patent. Absent a teaching or suggestion in the applied prior art references of all of the claim limitations, no *prima facie* case of obviousness exists. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Furthermore, the Hsu patent teaches *coating* a sheet with a resin — not *saturating* the sheet, as recited in amended, independent claim 37 and dependent claims 43-45. This deficiency in the Hsu patent teachings is not remedied by the disclosure of the Brooker patent. Contrary to the examiner's assertion in paragraph 5 of the official action, and citation to col. 2, lines 8+ of the Brooker patent, the Brooker patent does not teach one

skilled in the art to saturate paper sheets with a resin and does not teach that it is well known in the art to do so. Again, absent a teaching or suggestion in the applied prior art references of all of the claim limitations, no *prima facie* case of obviousness exists. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

**C. The Rejection of Claims 46 and 47 Over the Hsu Patent in View of the Guyette Patent, and the McClain Patent**

Claims 46 and 47 have been rejected under § 103(a) as being obvious over the Hsu patent in view of Guyette U.S. Patent No. 5,425,986 (the "Guyette patent") and McClain U.S. Patent No. 1,299,747 (the "McClain patent"). (See the official action at ¶s 6 and 7.) Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 46 and 47 each depend (either directly or indirectly) from amended, independent claim 37. The patentability of independent claim 37 is set forth in the preceding subsection (A) and, because claim 37 is patentable, so too are claims dependent therefrom, like claims 46 and 47. See *In re Fine*, 5 U.S.P.Q.2d at 1600.

None of the Hsu, McClain, or Guyette patents discloses a surface of a core substrate overlaid with *only one* resin-saturated sheet layer, as recited in amended, independent claim 37. As noted by the examiner in paragraph 6 of the official action, the sheets disclosed in the Guyette patent are utilized as "intermediate layers in wood composite laminates" — not as end layers. The Hsu and Guyette patents both teach the use of cross-banding layers disposed *between* a veneer and a core substrate, while the McClain patent teaches that nothing is overlaid on the side of the core substrate opposite to the side overlaid with the cross-banding material and the veneer. Based on these teachings, there is no motivation for one skilled in the art to conclude that the resin content and paper suggested by the Guyette patent should be saturated and applied to a core substrate surface without overlaying the paper with a balancing veneer. Based on the limited teachings of the Hsu and Guyette patents, the skilled artisan would not be motivated to discard the balancing veneer mandated by the Hsu and Guyette patent teachings for fear that warping would ensue. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.



**D. The Rejection of Claims 14, 17, 24-29, 36-41, and 48-54 Over the Baymiller Patent in View of the Hsu and McClain Patents**

Claims 14, 17, 24-29, 36-41, and 48-54 have been rejected under § 103(a) as being obvious over Baymiller U.S. Patent No. 3,816,236 (the "Baymiller patent") in view of the Hsu and McClain patents. Reconsideration and withdrawal of the rejection are respectfully requested. (See the official action at ¶s 9 and 13.)

Paragraph 9 (set forth at pages 5-7) of the official action suggests that all of the elements recited in independent claims 14, 17, 37, 51, and 53 are allegedly disclosed in the Baymiller patent, but that the Baymiller patent does not disclose a non-porous cross-banding layer (e.g., kraft paper) and the use of such a layer on both planar surfaces of a core substrate. Also suggested in the action is that these deficiencies in the disclosure of the Baymiller patent are remedied by the disclosure of the Hsu patent, which allegedly teaches the use of a non-porous, resin-coated layer, and the McClain patent, which allegedly teaches the presence of a cross-banding type layer on both planar surfaces of the core substrate.

While the Baymiller, Hsu, and McClain patents may, under some theory, disclose each of the elements recited in these independent claims, that alone is not sufficient to defeat patentability of the invention recited in these claims or claims dependent therefrom. "[E]very element of a claimed invention may often be found in the prior art." *In re Werner Kotzab*, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000); see also *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). It is not evident that all elements recited in the rejected claims are found in the Baymiller, Hsu, and McClain patents. Notwithstanding, it is the U.S. Patent and Trademark Office that bears the burden of establishing a *prima facie* case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d at 1598. To support a conclusion that a claimed combination is obvious, either (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. at 973. In the present action, neither showing (a) or (b) has been made.

The primary reference — the Baymiller patent — teaches the use of a cross-banding material to secure a veneer sheet to a wood core. The cross-banding sheet is described as a porous felt material. (The Baymiller patent at col. 1, lines 40-44.) To secure the veneer to the wood core, the cross-banding sheet is coated and saturated with a urea-formaldehyde resin and then disposed between the veneer sheet and the wood core to form a layered structure. The layered structure then is consolidated under heat and pressure for a period such that the resin forms a strong bond between the veneer and core. (The Baymiller patent at col. 2, lines 11-37.) By the teachings and disclosure in the Baymiller patent, one skilled in the art is not aware that warping of the consolidated product is a problem. (The instant application at page 3, lines 9-16, however, states that a design which does not utilize a balancing veneer or heavy duty backer paper, *i.e.*, the one set forth in the Baymiller patent, undesirably results in a warped consolidated wood product.) Without such an awareness, the skilled artisan would not be motivated to modify the teachings of the Baymiller patent. Even if the skilled artisan were aware of warping problems in the finished product of the Baymiller patent, he/she certainly would not be led to practice the Baymiller patent teachings.

One of the applied, secondary references — the Hsu patent — teaches the use of a *resin coated* sheet sandwiched between a veneer sheet and a wood particle board. (See the Hsu patent at col. 2, lines 50-62 and Figs. 1 and 2.) As shown in Fig. 1 of the Hsu patent and described at col. 2, lines 55-62 therein, this sandwiching occurs at *both* planar surfaces of the core. The formed, layered composite article is consolidated under heat and pressure for a period such that the resin forms a strong bond between the veneer sheets and the core. (The Hsu patent at col. 2, lines 63-68.) By the teachings and disclosure set forth in the Hsu patent, the skilled artisan is not aware that warping of a consolidated wood product is a problem. To the contrary, the skilled artisan is led to believe that the use of the balancing veneer might offset any tendency of the consolidated wood product to warp — this phenomenon is noted at page 3, lines 9-16 of the present application. Consequently, the skilled artisan would not be motivated to discard the balancing veneer mandated by the Hsu patent teachings for fear that warping would ensue.

The Baymiller patent teaches the use of a resin-saturated porous sheet layer, while the Hsu patent teaches the use of a resin-coated kraft sheet layer for the same cross-banding purpose. Resin-coated sheet layers and resin-saturated sheet layers, however, are not equivalent. In fact, the instant application at, for example, page 2, lines 24-27, expressly

teaches against the use of resin-coated sheet layers, as layered wood composite structures made according to conventional compression-molding press processes (e.g., those utilizing single resin-coated paper layers) undesirably experience excessive warping toward the veneer side. As stated in the present application at, for example, page 8, lines 14-22, an important feature of the invention is the utilization of resin-saturated or resin-impregnated (as opposed to resin-coated) sheets on both top and bottom surfaces of the core substrate to ensure minimal or no warping of the substrate and finished product. Distinctions between (a) resin-saturated or resin-impregnated sheets and (b) resin-coated sheets also can be found in the specification at, for example, page 6, line 16 to page 7, line 7. The applied art, however, provides absolutely no motivation to substitute the "saturation" taught by the Baymiller patent for the "coating" taught by the Hsu patent.

The other secondary reference -- the McClain patent -- teaches the application of a heavy duty backer paper to core surfaces without a veneer overlay to impart a moisture, oil and acidproof covering to the product. (See the McClain patent at page 2, line 115 to page 3, line 6.) There is no indication in the McClain patent that the use of the backer paper on a core surface that is not also covered with a veneer sheet will temper or prevent warping of the consolidated product. (To the contrary, such an indication is found only in the applicant's own application at page 3, lines 9-16.) By the teachings and disclosure set forth in the McClain patent, the skilled artisan is not aware that warping of a consolidated wood product is a problem. Without such an awareness, the skilled artisan would not be motivated to modify the teachings of the McClain patent. Consequently, the McClain patent can serve no basis for a position that its disclosure provides the skilled artisan a reasonable expectation that replacement of the backer paper disclosed therein with the kraft paper disclosed in the Hsu patent, use of the saturation characteristic taught by the Baymiller patent as opposed to the coating characteristic taught by the Hsu patent, and dispensation with the Hsu patent teachings to use a balancing veneer, will successfully yield a board product that is moisture-, oil-, or acid-proof, much less *unwarped*.

The law mandates that a reference must be considered for all that it teaches, not just some part that supports a particular position. *In re Hedges*, 228 U.S.P.Q. 685 (Fed. Cir. 1986). The examiner cannot simply pick and choose those portions of the reference which support his position and ignore those portions that do not. *Id.* Thus, for example, the examiner is not free to discard the Hsu patent teachings that mandate the use of veneer layers

on *both sides* of the substrate (see Fig. 1 and elements 24 and 26 of the Hsu patent), yet abide by the Hsu patent teachings to use the kraft paper disclosed therein and saturate the paper as taught by the Baymiller patent, absent motivation in the applied references to do so and a reasonable expectation of success.

None of the disclosures of the Baymiller, Hsu, and McClain patents acknowledges that warping is a problem present in the manufacture of layered composite wood products containing a veneer sheet. Of these patents, the Hsu patent discloses that splitting and checking (*i.e.*, cracking) of *face veneers* is a problem (see the Hsu patent at col. 1, lines 8-11), and the Baymiller patent discloses that cracking and warping of *face veneers* has been addressed by employing a cross-banding sheet (see the Baymiller patent at col. 1, lines 15-19). Splitting, cracking, and warping of *face veneers*, however, are different types of defects than *warping of layered composites containing a veneer sheet*. The techniques one might use to overcome or temper splitting, cracking, and warping of face veneers, *do not* address or suggest to the skilled artisan how one can overcome warping of layered composite wood products containing a veneer sheet.

Since warping of the consolidated wood product is not a problem recognized by any of the Baymiller, Hsu, and McClain patents, one skilled in the art would not be motivated to combine their teachings. It is respectfully submitted that the suggested combination can be motivated solely by hindsight reasoning guided by the applicant's own disclosure — reasoning that is expressly forbidden during the examination of a claim under § 103(a). *In re Gorman*, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991); *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The rejected, dependent claims (*i.e.*, claims 24-29, 36, 38-41, 48-50, 52, and 54) are patentable because each recites limitations to the invention recited in the patentable independent claims (*i.e.*, claims 14, 17, 37, 51, and 53). See *In re Fine*, 5 U.S.P.Q.2d at 1600. Notwithstanding that no *prima facie* case of obviousness exists with respect to the independent claims, no *prima facie* case of obviousness exists with respect to many of the dependent claims. Specifically, none of the Baymiller, Hsu, and McClain patents discloses a veneer layer comprising "a wood material having a moisture content of about 7 wt.% to about 10 wt.% based on the weight of the veneer." as recited in dependent claims 25 and 49. To the extent that the examiner is relying on the theory of inherency, the examiner has failed to

provide a reasonable basis in fact and/or technical reasoning to support a determination that an allegedly inherent characteristic (e.g., the specific moisture content of the wood material comprising the veneer) necessarily flows from the disclosures in the respective, applicable prior art references. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). The fact that a certain characteristic *may* be present in a prior art reference is not sufficient to establish inherency of that characteristic. *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). In order for a disclosure to be inherent, the missing descriptive matter must necessarily be present in the reference such that one skilled in the art would recognize such disclosure. *Tronzo v. Bioinet*, 47 U.S.P.Q.2d 1829, 1834 (Fed. Cir. 1998); *see also*, *Continental Can Co. U.S.A. v. Monsanto Co.*, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). There is no disclosure in the Baymiller, Hsu, and McClain patents that suggests the specific moisture content recited in dependent claims 25 and 49. Since, the applied references, together, do not disclose each and every element of the claimed invention, no *prima facie* case of obviousness can be made based on these references. *See In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Accordingly, reconsideration and withdrawal of the rejection of claims 25 and 49 are respectfully requested on this additional basis.

Furthermore, none of the Baymiller, Hsu, and McClain patents discloses the wood-composite-consolidating conditions recited in dependent claims 26-29, 38-41, 52, and 54. At most, the Baymiller patent describes manufacturing conditions wherein the materials disclosed therein are consolidated under heat (250°F) and pressure (150 psi) for a period (i.e., 5 to 15 minutes) such that the resin forms a strong bond between the veneer and core. (The Baymiller patent at col. 2, lines 11-37.) At most, the Hsu patent describes manufacturing conditions wherein the materials disclosed therein are consolidated under heat (275°F) and pressure (150 psi) for a period (a few minutes) such that the resin forms a strong bond between the veneer sheets and the core. (The Hsu patent at col. 2, lines 63-68.) Neither the Baymiller patent nor the Hsu patent suggests modifications to the press conditions disclosed therein. The McClain patent does not describe any specific manufacturing conditions. The conditions recited in claims 26-29, 38-41, 52, and 54 do not overlap with any of the conditions disclosed in the Baymiller, Hsu, and McClain patents. Since, the applied references, together, do not disclose each and every element of the claimed invention, no *prima facie* case of obviousness can be made based on these references. *See In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Accordingly, reconsideration and withdrawal of the

rejection of claims 26-29, 38-41, 52, and 54 are respectfully requested on these additional bases.

**E. The Rejection of Claims 22, 23, 34, 35, 46, and 47 Over the Baymiller Patent in View of the Hsu and McClain Patents, and Further in View of the Guyette Patent**

Claims 22, 23, 34, 35, 46, and 47 have been rejected under § 103(a) as being obvious over the Baymiller patent in view of the Hsu and McClain patents, and further in view of the Guyette patent. (See the official action at ¶s 10 and 11.) The arguments set forth in the immediately-preceding sub-section (D) are incorporated herein to address the improper combination of the Baymiller patent in view of the Hsu and McClain patents and, for the sake of brevity, will not be repeated here. On the basis of those arguments alone, the rejection of dependent claims 22, 23, 34, 35, 46, and 47 is improper, and reconsideration and withdrawal of the rejection are respectfully requested.

Notwithstanding the foregoing, the rejection of these claims also is improper in view of the disclosure of the Guyette patent. The examiner has selectively assembled the disclosures found in the Baymiller, Hsu, and Guyette patents to find the elements of the resin-saturated paper recited in each of dependent claims 22, 23, 34, 35, 46, and 47. No motivation, however, can be found in these patents to arrive at the claimed combination. Specifically, the applied references provide no motivation to (a) saturate, as taught by the Baymiller patent, (b) the specific type of paper disclosed in the Hsu and Guyette patents, and (c) subsequently use the resin-saturated paper in combination with the substrate and veneer under the consolidation conditions recited in the application claims. Furthermore, even if, under some theory, such motivation can be found, the applied references provide no reasonable expectation that an unwarped consolidated wood product will result. Consequently, no *prima facie* case of obviousness has been made. See *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Once again, it is respectfully submitted that the suggested combination can be motivated solely by hindsight reasoning guided by the applicant's own disclosure — reasoning that is expressly forbidden during the examination of a claim under § 103(a). *In re*

*Gorman*, 18 U.S.P.Q.2d at 1888; *In re Fritch*, 23 U.S.P.Q.2d at 1784. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**F. The Rejection of Claims 18-21, 30-33, and 42-45 Over the Baymiller Patent in View of the Hsu and McClain Patents, and Further in View of the Brooker Patent**

Claims 18-21, 30-33, and 42-45 have been rejected under § 103(a) as being obvious over the Baymiller patent in view of the Hsu and McClain patents, and further in view of the Brooker patent. (See the official action at ¶ 12.)

Claims 18-21, 30-33, and 42-45 each depend (either directly or indirectly) from independent claims 14, 17, and 37, respectively. The patentability of these independent claims has been set forth in the preceding subsections and, for the sake of brevity, will not be repeated here. Because these independent claims are patentable, so too are all claims dependent therefrom, including claims 18-21, 30-33, and 42-45. See *In re Fine*, 5 U.S.P.Q.2d at 1600. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**CONCLUSION**

In view of the foregoing, entry of the amendment to claim 37, reconsideration and withdrawal of the rejections, and allowance of all pending claims 14 and 17-54 are respectfully requested.


Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, he is urged to contact the undersigned attorney.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN

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By:

  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Claims:**

Please amend claim 37 as follows:

37. (Twice amended) An unwarped laminated composite wood product made by a method comprising the steps of:

- (a) forming a layered structure comprising a rigid substrate layer having two substantially flat sides, a resin-saturated sheet layer disposed on each of said sides, and a veneer layer disposed on [at least] only one of said sheet layers; and,
- (b) subjecting said structure to elevated temperature and pressure in a pressing apparatus for a time sufficient to cure said resin at said temperature and pressure, said pressing apparatus comprising a first platen and a second platen, said first platen operating at a temperature different from an operating temperature of said second platen, to provide an unwarped, laminated composite wood product.